AIR COMMAND AND STAFF COLLEGE AIR UNIVERSITY

AIR FORCE PHYSICAL FITNESS STANDARDS

BY

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Form Approved OMB No. 0704-0188 The terrorist attacks against that occurred on 9/11 have changed the security environment for the United States and its allies. Our military was tasked to fight against a nonconventional enemy. The military operations that followed and continue today have caused changes in military strategy and doctrine. Military personnel are faced with a myriad of missions ranging from conventional warfare to humanitarian assistance. The ability of the servicemen to successfully conduct military operations is greatly dependent upon both their mental, physical health and individual fitness levels.

The United States Government has invested millions of dollars to ensure the Department of Defense is trained, equipped and poised to fight our nation's wars. However, exceptional equipment and training does not automatically correlate to mission success and objective accomplishment. Human performance is often times the determining factor of mission success or failure. The ability for military personnel to handle combat stress must be considered in garrison, long before deployment orders are issued. The Air Force must change its physical fitness standards in order to prepare personnel for a combat environment while mitigating some of the negative effects associated with it.

Webster Medical Dictionary defines Health as "a human condition with physical, social, and psychological dimensions, each characterized on a continuum with positive and negative poles. Positive health is associated with a capacity to enjoy life and to withstand challenges; it is not merely the absence of disease. Negative health is associated with illness, and in the extreme, with premature death." The American College of Sports Medicine states that physical fitness is divided into three components: health-related, skill- related and physiologic components. The health related components of physical fitness are cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition. The physiological

components of fitness are metabolic fitness, morphologic fitness and bone integrity. The skilled related components of physical fitness are speed, power, agility, coordination, balance, and reaction time.²

There are obvious benefits to physical fitness. Regular physical activity results in a stronger hear capable of a greater stroke volume which translates to the heart capable pumping more oxygenated blood through the body.³ The Army and Marine Corps have traditionally had more rigorous physical fitness programs when compared to the Air Force. Additionally, both the Army and Marine Corps initiated changes to their fitness programs as a result of lessons learned from previous conflicts, with the goal to enhance the combat readiness of their personnel. They have taken the lead in this area mainly due to their preponderance of ground forces. However, there has been a recent paradigm shift in the mission sets that Air Force members are tasked to perform. AF personnel are conducting convoy operations, base perimeter defense, and are members of provincial reconstruction teams, missions traditionally performed by Army and Marine personnel. Airmen are being exposed to situations that are outside the realm of traditional mission, and many are not physically or mentally prepared. Increased military operations have influenced Air Force leadership to consider changing the current Air Force Physical Standards. However, not enough is being done to prepare the Air Force personnel to meet the rigors associated with combat. The purpose of this paper is to present some ideas that would suggest the need for the Headquarter Air Force to develop a fitness program more applicable to current operations.

Physical training and the military have been synonymous for many years. The Center for Disease Control defines physical fitness as the ability to carry out daily tasks with vigor and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and

respond to emergencies. Physical fitness includes a number of components consisting of cardio respiratory endurance (aerobic power), skeletal muscle endurance, skeletal muscle strength, skeletal muscle power, flexibility, and balance, speed of movement, reaction time, and body composition.

The Marine Corps recognized that its standard physical fitness test implemented originally in 1972 did not adequately evaluate the individual infantryman's level of combat fitness. The Marine Corps considers combat fitness as "the ability of a Marine to meet the physical demand s of any combat or duty situation without undue fatigue." ⁴ The test was not applicable to the scenarios that the infantryman would most likely face in combat. However, in 2006 the MARADMIN 579/06 announced the Marine Corps' Concept of functional fitness. The new concept, states that "fitness is a conglomeration of physical skill that includes: endurance; stamina; strength; flexibility; power; speed; coordination; agility; balance and accuracy." It goes on to state that "functional fitness is most accurately measured by one's capacity to perform well at the various tasks a Marine is faced with on a daily basis in training and or in combat". ⁵ On 1 October 2009 the Combat Fitness test was implemented. It consist of a 880 yard run, a 30lb ammo lift, and maneuver under fire which is a timed 300-yard shuttle run in which Marines are paired up by size and perform a series of combat-related tasks all performed in the battle dress uniform and boots. The Marine Corps leadership understood the stressors of war and their effect on infantryman and made necessary enhancements to prepare them for the fight.

Like the Marines Corps, Army leadership recognizes that physical fitness is a way to reduce physical stressors. The Army has published guidance for its leaders to drive home the point. AR350-41, *Training in Units* published in 1993, states that high levels of physical fitness may lead to unit cohesion, self—discipline and an ability to cope with psychological stress.⁶ FM

22-51, *Leaders Manual for Combat Stress Control*, mentions that both physical and mental benefits of strenuous physical activity on the soldiers' performance and tolerance of battlefield stressors. Field Manual (FM) 6-22 *Army Leadership* states, "If not physically fit before deployment, the effects of additional stress compromise mental and emotion fitness". Physical training and exercise increases the soldier's resiliency to stress. Physical activity is a method to reduce anxiety and lower stress levels by expending energy that accompanies stress. In 2008 the Army announced that The National Institute of Mental Health has agreed to conduct a research study for the Army, focusing on the mental and behavioral health of soldiers. The study would focus on the particular factors leading to suicidal behavior. In October 2008 the Army Chief of Staff instituted a new program called Comprehensive Soldier Fitness a holistic approach to developing resiliency in the five domains of health fitness which are spiritual, social, family, emotional, and physical fitness. Army suicides have reached a three decade high. There is not enough data to indicate whether this new initiative is successful at reducing them.

Through experience the Army and Marine Corps have recognized that fitness play major in combat effectiveness. The benefits of exercise have long been documented. Research shows that stress, anxiety, and depression relieving effects of exercise are directly related to the duration of the exercise program. A study showed that service members participating in a nine and twelve week fitness programs show significant improvements in anxiety and stress levels compared to control groups who conducted no formal exercise program. ¹⁰ Researchers at the Navel Health Research Center stated that Post Traumatic Stress Disorder systems are thought to occur in as much as 15 to 20% of individuals exposed to combat. In their study "Physical Fitness Influences Stress Reactions to Extreme Military Training", it was concluded that physical fitness may buffer stress symptoms secondary to extreme military stress. ¹¹

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Another study hypothesized that military physical hardiness would moderate the effects of deployment stressors on soldiers health.¹²

The Air Force has lagged behind the other services in developing a comprehensive program to improve the overall fitness of its airmen. The businesslike culture of Air Force has diminished the war fighter mentality, and combat preparedness of its airmen. Several Air Force career fields mandate higher fitness standards for their members. Combat Controller, Para Rescue, and Tactical Control Parties (TAC-P), have more stringent physical fitness requirements than conventional career fields due to the nature of their job and the physical demands required. Individual is these career fields are more likely to face combat and subsequently have the physically and mentally capacity to perform their jobs. The conventional Air Force should consider standardizing current standards with the Army. The tides have turned. It is no longer just the Air Force fighter pilots that are experiencing the rigors of combat. Today's airmen are deploying to more austere locations and in many cases living, and fighting with other sister services. The increased physical demands placed on airmen warrant a revision to the fitness culture.

Your physical fitness levels must be at a point where it is no longer a consideration...you are not fit in order to survive; you are not fit to excel at any physical task; you are fit because it allows you to bring to the battle that critical component of being a commander and a leader. You are fit because you must retain the greatest ability to lead, command, to inspire, to think, to plan, and to accomplish your mission. Everything else is for show, and therefore meaningless. D.M. Day.

In recognizing the need to improve the overall fitness and promote a year round culture and fitness the Air Force has announced the release of a new Air Force Fitness standards and

assessment to start in July 09. The announcement came after a report released by the Air Force Audit agency indicated some inconsistencies and discrepancies in the administration of the current fitness program. They recommend some revisions to the program and suggested the administration of the program be centralized. The Air Force Chief of Staff Gen Norton Schwartz stated, "Fitness is a vital component of Air Force Culture, and the challenging times underscore the importance of properly caring for our most valuable resource: our Airmen.

The Air Force Fitness Program is in its infancy when compared to the other service components. While there are some improvements to the program it alone will not foster the necessary culture of combat fitness needed to prep airmen for future deployments. The current AF fitness test include a 1.5 mile run/walk, sit-ups and push –ups both are 1 minute timed events. The changes recommended by the AF Audit Agency included bi-annual testing and more stringent passing standards in the fitness components tested. The increased frequency of testing will require airmen to maintain a minimum level of fitness throughout the year. Maintaining minimum fitness standards does not correlate to be physically fit for combat. However, it is a step in the right direction.

The Air Force fitness program has gone through major transitions over the past 15 years. Air Force personnel cannot live sedentary lifestyles and expect to perform at the optimal level in the combat environment. The human performance data dictates that military leadership in all branches of service should pay close attention to the study the long term effects that combat stress has on their personnel. This Air Force should consider a functional fitness test to adequately prepare the airmen for the physical stressors that many are facing in combat now.

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¹ Webster Medical Dictionary Online

² Mitchell H. Whaely., ACSM's Guidelines for Exercise Testing and Prescription. Baltimore, MD: Lippincott, Willaims, and Willkins, 2006 p. 3

³ Charles Corbin, "The Benefits of Exercise for the Clinically Depression. "Journal of Sports Exercise Psychology 20 (1998): 339-357.

⁴ Marine Corps Order P6100.12, Marine Corps Physical Fitness Test and Body Composition Program Manual, 10 May 2002

⁵ MARADMIN 579/06. 6 Dec 2009. http://www.usmc.mil/maradmins/maradmin2000.nsf/ (accessed Dec 6. 2009)

⁶ Army Regulation (AR) 350-41, Army Training in Units. Washington, DC: Government Printing Office, 1993

⁷ Field Manual (FM) 22-51, Leaders Manual for Combat Stress Control. Washington, DC: Government Printing Office, 1994

⁸ Field Manual (FM) 6-22, Army Leadership, Washington, DC: Government Printing Office, 2006

⁹ Glenn Schiraldi. The Post Traumatic Stress Disorder Sourcebook. New York: McGraw Hill. 1999 p. 94

¹⁰ Lynette Craft. "The Benefits of Exercise for the Clinically Depressed." Primary Care Campion to the Journal of Clinical Psychiatry 6, no. 3 (2004): 014-111

¹¹ Markus Taylor "Physical Fitness Influences Stress Reactions to Extreme Military Training." Military Medicine 173 (August 008 2008): 738-742.

¹² Carol Dolan "Military Hardiness as a Buffer of Psychological Health on Return from Deployment." Military Medicine 171,no. 2 (February 2006): 93-98

BIBLIOGRAPHY

Army Regulation (AR) 350-41, Army Training in Units. Washington, DC: Government Printing Office, 1993

Corbin, Charles, "The Benefits of Exercise for the Clinically Depression. "Journal of Sports Exercise Psychology 20 (1998): 339-357.

Craft, Lynnette. "The Benefits of Exercise for the Clinically Depressed." Primary Care Campion to the Journal of Clinical Psychiatry 6, no. 3 (2004): 014-111

Dolan, Carol "Military Hardiness as a Buffer of Psychological Health on Return from Deployment." Military Medicine 171,no. 2 (February 2006): 93-98

Field Manul (FM) 22-51, Leaders Manual for Combat Stress Control. Washington, DC: Government Printing Office, 1994

Field Manual (FM) 6-22, Army Leadership, Washington, DC: Government Printing Office, 2006

Marine Corps Order P6100.12, Marine Corps Physical Fitness Test and Body Composition Prorgram Manual, 10 May 2002

MARADMIN 579/06. 6 Dec 2009. http://www.usmc.mil/maradmins/maradmin2000.nsf/ (accessed Dec 6. 2009)

Schiraldi, Glenn. The Post Traumatic Stress Disorder Sourcebook. New York: McGraw Hill. 1999 p. 94

Taylor, Markus "Physical Fitness Influences Stress Reactions to Extreme Military Training." Military Medicine 173 (August 008 2008): 738-742.

Webster Dictionary Online, accessed 7 Dec 2009 http://www.merriam-webster.com/

Whaely, Mitchelly., ACSM's Guidelines for Exercise Testing and Perscription. Baltimore, MD: Lippincott, Willaims, and Willkins, 2006 p. 3